Eric Anderson s status report has been broken up into two parts. This part contains changes that he recommends. Treat each change as a separate request in your prioritization. Reference the **HEA*number*** when appropriate in your prioritized list.

ICP PROGRAM STATUS AS OF FEBRUARY 2000

This report documents some changes that would be helpful. The primary list is based on the last officially released version of ICP which was version 14.1 on May 6, 1999.

Possible significant future enhancements to ICP, such as new displays or analysis features, are not included in this report. This report is only concerned with existing features.

The items are not listed in any priority based order.

SUGGESTED CHANGES (by Eric Anderson)

HEA1. The Snow and Unit Hydrograph selected parameter windows always have to be resized in order to see everything when they are first brought up, whereas the Sacramento Model selected parameter window doesn't. This is also the case with the ET-demand Curve Text Editing window and the Areal Depletion Curve Text Editing window. When these windows are first selected, their entire contents should be visible. (expansion of Future list item 10)

HEA2. It would be more informative if the "Edit Wide Listing " label would be changed to "View MCP Listing". (Future list item 11)

HEA3. It would be nice to have a feature under the Unit Hydrograph Selected Parameter Change to be able to change the area associated with the unitgraph. The area could be shown and if the user decided to change it, a new area would be entered and all the ordinates would be multiplied by the ratio of the new area to the old area. Many RFCs have existing unitgraphs that don't quite represent the correct area. (Future list item 12)

HEA4. When clicking in the WY-PLOT and PLOT-TS display areas with the right mouse button to display the date and value (x-y display), the crosshairs generated need adjusting relative to the time scale. Currently a given date is displayed when you click anywhere from immediately after that date up to the start of the next date. It would be better if when you click anywhere within + or - 1/2 the time interval around a given date, that date would be displayed. This can be best seen when a small number of days are display (e.g. 31 days), though it is evident even when a year or more of

data are shown in the window.

HEA5. When the PLOT-TS display is selected on the main Display menu a window appears that just includes a time bar (with no dates) and slider, but no plots. If you use the slider bar, the program coredumps. From this window one then selects which PLOT-TS operation is to be displayed. It seems like when you select the PLOT-TS option under the Display menu that the first PLOT-TS operation in the MCP control deck should be displayed just like with the WY-PLOT display. Then you would use the Select menu to display other PLOT-TS operations if there are more than one in the control deck.

HEA6. It would be nice to be able to edit time series via the new PLOT-TS display. One use of this display is to check the form of precipitation by displaying MAP, MAT, SWE, SNOG, and daily flow time series. When the form of precipitation is not correct, the MAT time series are altered to change rain to snow or vice-versa. It would be nice with the PLOT-TS display to click on the right mouse button and display a value and then change that value in the small text window and click on a 'Edit Value' or 'Change Value' button and have the value changed in the time series. Any time series to be edited would first need to be specified somewhere (a list of INPUT time series could be provided to select from -- only INPUT time series should be changed). At that point the time series would be read from the appropriate file into temporary storage. When the editing is complete, a new time series would be written back to the same file with a suffix attached to the end, thus the original time series would be preserved.

HEA7. For the WY-PLOT display currently only one 'SQME' time series can be saved for display when the 'Load Last SQME' feature is selected. If there are multiple WY-PLOT operations, still only one SQME time series for only one of the plots can be saved. It would be nice to at least be able to save one SQME time series for each plot. Even better would be a feature like used by the PLOT-TS display where any time series can be saved and then reloaded later (only one reloaded time series can be displayed at a time).

HEA8. WY-PLOT hydrograph displays should be in English units if the output flag on card 2 of the MCP control deck is set to 'ENG'. (Future list item 1)

HEA9. The x-y display for PLOT-TS allows the value of any plotted time series to be displayed. The plotted point closest to where you click is the one included in the x-y display. This feature should be added to the WY-PLOT display. Currently the WY-PLOT x-y display only looks at the first time series in the plot (normally QME).

HEA10. Under the Select option of the PLOT-TS panner display, it would be helpful to display the identifier, as well as the data type for each time series on a

plot. Currently only the data type is displayed and there may be several of the same data types included on the plot.

HEA11. An x-y display feature would be helpful for the SNOW-17 and SAC-SMA displays so that exact values can be determined from the plots.

HEA12. It would be nice if the legend window for the PLOT-TS display would show which color line is used for each time series.

Additional enhancements

HEA13. ET demand Vs Seasonal Bias Analysis feature.

HEA14. Areal Depletion Curve analysis: similar to Percolation Analysis

HEA15. Snow Model Melt factor Analysis

HEA16. More direct link to the Automatic Optimization program (OPT3)

HEA17. Editable window in PLOT-TS

HEA18. Grapical display of statistics

HEA19. Link to statistics package for time series other than 24 hour time step.